

Untitled.ST25
SEQUENCE LISTING

<110> University of Manitoba
Her Majesty the Queen in Right of Canada as Represented by
the Minister of Health

<120> SARS-RELATED PROTEINS

<130> 85084-1003

<150> US 60/462688
<151> 2003-04-15

<150> US 60/472416
<151> 2003-05-22

<160> 2

<170> PatentIn version 3.2

<210> 1
<211> 421
<212> PRT
<213> coronavirus

<400> 1

Ser Asp Asn Gly Pro Gln Ser Asn Gln Arg Ser Ala Pro Arg Ile Thr
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Phe Gly Gly Pro Thr Asp Ser Thr Asp Asn Asn Gln Asp Gly Gly Arg
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Asn Gly Ala Arg Pro Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn Asn
35 40 45

Thr Ala Ser Trp Phe Thr Ala Leu Thr Gln His Gly Lys Glu Glu Leu
50 55 60

Arg Phe Pro Arg Gly Gln Gly Val Pro Ile Asn Thr Asn Ser Gly Pro
65 70 75 80

Asp Asp Gln Ile Gly Tyr Tyr Arg Arg Ala Thr Arg Arg Val Arg Gly
85 90 95

Gly Asp Gly Lys Met Lys Glu Leu Ser Pro Arg Trp Tyr Phe Tyr Tyr
100 105 110

Leu Gly Thr Gly Pro Glu Ala Ser Leu Pro Tyr Gly Ala Asn Lys Glu
115 120 125

Gly Ile Val Trp Val Ala Thr Glu Gly Ala Leu Asn Thr Pro Lys Asp
130 135 140

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His Ile Gly Thr Arg Asn Pro Asn Asn Ala Ala Thr Val Leu Gln
145 150 155 160

Leu Pro Gln Gly Thr Thr Leu Pro Lys Gly Phe Tyr Ala Glu Gly Ser
165 170 175

Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser Arg Gly
180 185 190

Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser Pro Ala
195 200 205

Arg Met Ala Ser Gly Gly Glu Thr Ala Leu Ala Leu Leu Leu
210 215 220

Asp Arg Leu Asn Gln Leu Glu Ser Lys Val Ser Gly Lys Gly Gln Gln
225 230 235 240

Gln Gln Gly Gln Thr Val Thr Lys Lys Ser Ala Ala Glu Ala Ser Lys
245 250 255

Lys Pro Arg Gln Lys Arg Thr Ala Thr Lys Gln Tyr Asn Val Thr Gln
260 265 270

Ala Phe Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly Asp
275 280 285

Gln Asp Leu Ile Arg Gln Gly Thr Asp Tyr Lys His Trp Pro Gln Ile
290 295 300

Ala Gln Phe Ala Pro Ser Ala Ser Ala Phe Phe Gly Met Ser Arg Ile
305 310 315 320

Gly Met Glu Val Thr Pro Ser Gly Thr Trp Leu Thr Tyr His Gly Ala
325 330 335

Ile Lys Leu Asp Asp Lys Asp Pro Gln Phe Lys Asp Asn Val Ile Leu
340 345 350

Leu Asn Lys His Ile Asp Ala Tyr Lys Thr Phe Pro Pro Thr Glu Pro
355 360 365

Lys Lys Asp Lys Lys Lys Lys Thr Asp Glu Ala Gln Pro Leu Pro Gln
370 375 380

Arg Gln Lys Lys Gln Pro Thr Val Thr Leu Leu Pro Ala Ala Asp Met
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Asp Asp Phe Ser Arg Gln Leu Gln Asn Ser Met Ser Gly Ala Ser Ala
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Asp Ser Thr Gln Ala
 420

<210> 2
 <211> 1254
 <212> PRT
 <213> coronavirus

<300>
 <301> Krokhin et al.
 <302> Mass Spectrometric Characterization of Proteins from the SARS
 virus: A Preliminary Report
 <303> Mol. Cell. Proteomics
 <304> 2
 <305> 5
 <306> 346-356
 <307> 2003-05-29

<400> 2

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Arg Cys Thr Thr Phe Asp Asp Val Gln Ala Pro Asn Tyr Thr Gln His
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Thr Ser Ser Met Arg Gly Val Tyr Tyr Pro Asp Glu Ile Phe Arg Ser
 35 40 45

Asp Thr Leu Tyr Leu Thr Gln Asp Leu Phe Leu Pro Phe Tyr Ser Asn
 50 55 60

Val Thr Gly Phe His Thr Ile Asn His Thr Phe Gly Asn Pro Val Ile
 65 70 75 80

Pro Phe Lys Asp Gly Ile Tyr Phe Ala Ala Thr Glu Lys Ser Asn Val
 85 90 95

Val Arg Gly Trp Val Phe Gly Ser Thr Met Asn Asn Lys Ser Gln Ser
 100 105 110

Val Ile Ile Ile Asn Asn Ser Thr Asn Val Val Ile Arg Ala Cys Asn
 115 120 125

Phe Glu Leu Cys Asp Asn Pro Phe Phe Ala Val Ser Lys Pro Met Gly
 130 135 140

Thr Gln Thr His Thr Met Ile Phe Asp Asn Ala Phe Asn Cys Thr Phe

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145	150	155	160
Glu Tyr Ile Ser Asp Ala Phe Ser Leu Asp Val Ser Glu Lys Ser Gly			
165	170	175	
Asn Phe Lys His Leu Arg Glu Phe Val Phe Lys Asn Lys Asp Gly Phe			
180	185	190	
Leu Tyr Val Tyr Lys Gly Tyr Gln Pro Ile Asp Val Val Arg Asp Leu			
195	200	205	
Pro Ser Gly Phe Asn Thr Leu Lys Pro Ile Phe Lys Leu Pro Leu Gly			
210	215	220	
Ile Asn Ile Thr Asn Phe Arg Ala Ile Leu Thr Ala Phe Ser Pro Ala			
225	230	235	240
Gln Asp Ile Trp Gly Thr Ser Ala Ala Ala Tyr Phe Val Gly Tyr Leu			
245	250	255	
Lys Pro Thr Thr Phe Met Leu Lys Tyr Asp Glu Asn Gly Thr Ile Thr			
260	265	270	
Asp Ala Val Asp Cys Ser Gln Asn Pro Leu Ala Glu Leu Lys Cys Ser			
275	280	285	
Val Lys Ser Phe Glu Ile Asp Lys Gly Ile Tyr Gln Thr Ser Asn Phe			
290	295	300	
Arg Val Val Pro Ser Gly Asp Val Val Arg Phe Pro Asn Ile Thr Asn			
305	310	315	320
Leu Cys Pro Phe Gly Glu Val Phe Asn Ala Thr Lys Phe Pro Ser Val			
325	330	335	
Tyr Ala Trp Glu Arg Lys Lys Ile Ser Asn Cys Val Ala Asp Tyr Ser			
340	345	350	
Val Leu Tyr Asn Ser Thr Phe Phe Ser Thr Phe Lys Cys Tyr Gly Val			
355	360	365	
Ser Ala Thr Lys Leu Asn Asp Leu Cys Phe Ser Asn Val Tyr Ala Asp			
370	375	380	
Ser Phe Val Val Lys Gly Asp Asp Val Arg Gln Ile Ala Pro Gly Gln			
385	390	395	400

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Thr Gly Val Ile Ala Asp Tyr Asn Tyr Lys Leu Pro Asp Asp Phe Met
405 410 415

Gly Cys Val Leu Ala Trp Asn Thr Arg Asn Ile Asp Ala Thr Ser Thr
420 425 430

Gly Asn Tyr Asn Tyr Lys Tyr Arg Tyr Leu Arg His Gly Lys Leu Arg
435 440 445

Pro Phe Glu Arg Asp Ile Ser Asn Val Pro Phe Ser Pro Asp Gly Lys
450 455 460

Pro Cys Thr Pro Pro Ala Leu Asn Cys Tyr Trp Pro Leu Asn Asp Tyr
465 470 475 480

Gly Phe Tyr Thr Thr Gly Ile Gly Tyr Gln Pro Tyr Arg Val Val
485 490 495

Val Leu Ser Phe Glu Leu Leu Asn Ala Pro Ala Thr Val Cys Gly Pro
500 505 510

Lys Leu Ser Thr Asp Leu Ile Lys Asn Gln Cys Val Asn Phe Asn Phe
515 520 525

Asn Gly Leu Thr Gly Thr Gly Val Leu Thr Pro Ser Ser Lys Arg Phe
530 535 540

Gln Pro Phe Gln Gln Phe Gly Arg Asp Val Ser Asp Phe Thr Asp Ser
545 550 555 560

Val Arg Asp Pro Lys Thr Ser Glu Ile Leu Asp Ile Ser Pro Cys Ala
565 570 575

Phe Gly Gly Val Ser Val Ile Thr Pro Gly Thr Asn Ala Ser Ser Glu
580 585 590

Val Ala Val Leu Tyr Gln Asp Val Asn Cys Thr Asp Val Ser Thr Ala
595 600 605

Ile His Ala Asp Gln Leu Thr Pro Ala Trp Arg Ile Tyr Ser Thr Gly
610 615 620

Asn Asn Val Phe Gln Thr Gln Ala Gly Cys Leu Ile Gly Ala Glu His
625 630 635 640

Val Asp Thr Ser Tyr Glu Cys Asp Ile Pro Ile Gly Ala Gly Ile Cys
645 650 655

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Ala Ser Tyr His Thr Val Ser Leu Leu Arg Ser Thr Ser Gln Lys Ser
660 665 670

Ile Val Ala Tyr Thr Met Ser Leu Gly Ala Asp Ser Ser Ile Ala Tyr
675 680 685

Ser Asn Asn Thr Ile Ala Ile Pro Thr Asn Phe Ser Ile Ser Ile Thr
690 695 700

Thr Glu Val Met Pro Val Ser Met Ala Lys Thr Ser Val Asp Cys Asn
705 710 715 720

Met Tyr Ile Cys Gly Asp Ser Thr Glu Cys Ala Asn Leu Leu Leu Gln
725 730 735

Tyr Gly Ser Phe Cys Thr Gln Leu Asn Arg Ala Leu Ser Gly Ile Ala
740 745 750

Ala Glu Gln Asp Arg Asn Thr Arg Glu Val Phe Ala Gln Val Lys Gln
755 760 765

Met Tyr Lys Thr Pro Thr Leu Lys Tyr Phe Gly Gly Phe Asn Phe Ser
770 775 780

Gln Ile Leu Pro Asp Pro Leu Lys Pro Thr Lys Arg Ser Phe Ile Glu
785 790 795 800

Asp Leu Leu Phe Asn Lys Val Thr Leu Ala Asp Ala Gly Phe Met Lys
805 810 815

Gln Tyr Gly Glu Cys Leu Gly Asp Ile Asn Ala Arg Asp Leu Ile Cys
820 825 830

Ala Gln Lys Phe Asn Gly Leu Thr Val Leu Pro Pro Leu Leu Thr Asp
835 840 845

Asp Met Ile Ala Ala Tyr Thr Ala Ala Leu Val Ser Gly Thr Ala Thr
850 855 860

Ala Gly Trp Thr Phe Gly Ala Gly Ala Ala Leu Gln Ile Pro Phe Ala
865 870 875 880

Met Gln Met Ala Tyr Arg Phe Asn Gly Ile Gly Val Thr Gln Asn Val
885 890 895

Leu Tyr Glu Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala Ile
900 905 910

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Ser Gln Ile Gln Glu Ser Leu Thr Thr Thr Ser Ala Leu Gly Lys
915 920 925

Leu Gln Asp Val Val Asn Gln Asn Ala Gln Ala Leu Asn Thr Leu Val
930 935 940

Lys Gln Leu Ser Ser Asn Phe Gly Ala Ile Ser Ser Val Leu Asn Asp
945 950 955 960

Ile Leu Ser Arg Leu Asp Lys Val Glu Ala Glu Val Gln Ile Asp Arg
965 970 975

Leu Ile Thr Gly Arg Leu Gln Ser Leu Gln Thr Tyr Val Thr Gln Gln
980 985 990

Leu Ile Arg Ala Ala Glu Ile Arg Ala Ser Ala Asn Leu Ala Ala Thr
995 1000 1005

Lys Met Ser Glu Cys Val Leu Gly Gln Ser Lys Arg Val Asp Phe
1010 1015 1020

Cys Gly Lys Gly Tyr His Leu Met Ser Phe Pro Gln Ala Ala Pro
1025 1030 1035

His Gly Val Val Phe Leu His Val Thr Tyr Val Pro Ser Gln Glu
1040 1045 1050

Arg Asn Phe Thr Thr Ala Pro Ala Ile Cys His Glu Gly Lys Ala
1055 1060 1065

Tyr Phe Pro Arg Glu Gly Val Phe Val Phe Asn Gly Thr Ser Trp
1070 1075 1080

Phe Ile Thr Gln Arg Asn Phe Phe Ser Pro Gln Ile Ile Thr Thr
1085 1090 1095

Asp Asn Thr Phe Val Ser Gly Asn Cys Asp Val Val Ile Gly Ile
1100 1105 1110

Ile Asn Asn Thr Val Tyr Asp Pro Leu Gln Pro Glu Leu Asp Ser
1115 1120 1125

Phe Lys Glu Glu Leu Asp Lys Tyr Phe Lys Asn His Thr Ser Pro
1130 1135 1140

Asp Val Asp Leu Gly Asp Ile Ser Gly Ile Asn Ala Ser Val Val

1145 1150 Untitled.ST25
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Asn Ile Gln Lys Glu Ile Asp Arg Leu Asn Glu Val Ala Lys Asn
1160 1165 1170

Leu Asn Glu Ser Leu Ile Asp Leu Gln Glu Leu Gly Lys Tyr Glu
1175 1180 1185

Gln Tyr Ile Lys Trp Pro Trp Tyr Val Trp Leu Gly Phe Ile Ala
1190 1195 1200

Gly Leu Ile Ala Ile Val Met Val Thr Ile Leu Leu Cys Cys Met
1205 1210 1215

Thr Ser Cys Cys Ser Cys Leu Lys Gly Ala Cys Ser Cys Gly Ser
1220 1225 1230

Cys Cys Lys Phe Asp Glu Asp Asp Ser Glu Pro Val Leu Lys Gly
1235 1240 1245

Val Lys Leu His Tyr Thr
1250